

WHAT IS CLAIMED IS:

1. A method of forming a microlens comprising the steps of:  
  
providing a wafer having an indentation formed therein;  
  
filling the indentation with a filler material;  
  
forming a microlens material;  
  
removing a portion of the microlens material;  
  
substantially removing the filler material; and  
  
forming the microlens from the remaining microlens material.
2. The method of claim 1, wherein the indentation is a bond pad area or a scribe line.
3. The method of claim 1, wherein the filler material is a photoresist material.
4. The method of claim 1, wherein the filler material is a positive photoresist material.
5. The method of claim 1, wherein the microlens material is a photoresist material.
6. The method of claim 1, wherein the microlens material is a positive photoresist material.

7. The method of claim 1, wherein the step of removing a portion of the microlens material includes the steps of:

applying a mask on the microlens material to define the microlens;

exposing the microlens material with the mask; and

developing the microlens material, wherein the microlens material defined to be the microlens remains.

8. The method of claim 1, wherein the filler material is a photoresist material and the step of substantially removing the filler material includes the steps of:

exposing the filler material; and

developing the filler material to substantially remove the filler material.

9. A method of forming a microlens comprising the steps of:
- providing a wafer having an indentation formed therein;
  - substantially filling the indentation with a photoresist filler material;
  - forming a microlens material;
  - exposing the microlens material and the photoresist filler material;
  - developing the microlens material and the photoresist filler material; and
  - forming the microlens from the remaining microlens material.
10. The method of claim 9, wherein the indentation is a bond pad area and scribe line.
11. The method of claim 9, wherein the photoresist filler material is a positive photoresist material.
12. The method of claim 9, wherein the step of substantially filling the indentation includes the steps of:
- applying a photoresist material;
  - masking the photoresist material such that the photoresist material within the indentation will remain; and
  - developing the photoresist material to remove the photoresist material not located in the indentation.

13. The method of claim 9, wherein the microlens material is a photoresist material.
14. The method of claim 9, wherein the microlens material is a positive photoresist material.
15. The method of claim 9, wherein the step of exposing the microlens material and the photoresist filler material comprises exposing the microlens material to a first energy and exposing the photoresist filler material to a second energy, wherein the first energy is not equivalent to the second energy.
16. The method of claim 9, wherein the step of exposing the microlens material and the photoresist filler material comprises exposing the microlens material to a first energy and exposing the photoresist filler material to a second energy, wherein the first energy is about 60 mj to 600 mj and the second energy is about 600 mj to 2000 mj.
17. The method of claim 9, wherein the step of removing the microlens material includes the steps of:
  - applying a mask on the microlens material to define the microlens;
  - exposing the microlens material with the mask; and

developing the microlens material, wherein the microlens material defined to be the microlens remains.

18. The method of claim 9, wherein the step of developing the microlens material and the photoresist filler material is performed in a single developing stage.

19. A method of forming a microlens comprising the steps of:
- providing a wafer having an indentation formed therein;
  - substantially filling the indentation with a filler material;
  - forming a microlens material;
  - removing excess microlens material;
  - forming a mask on the wafer, the mask defining the indentation;
  - etching the wafer in a pattern aligned with the mask to remove the photoresist filler material; and
  - forming the microlens.
20. The method of claim 19, wherein the indentation is a bond pad area or a scribe line.
21. The method of claim 19, wherein the filler material is a photoresist material.
22. The method of claim 19, wherein the filler material is a positive photoresist material.
23. The method of claim 19, wherein the step of substantially filling the indentation includes the steps of: applying a photoresist material;

masking the photoresist material such that the photoresist material within the indentation will remain; and

developing the photoresist material to remove the photoresist material not located in the indentation.

24. The method of claim 19, wherein the microlens material is a photoresist material.

25. The method of claim 19, wherein the microlens material is a positive photoresist material.

26. The method of claim 19, wherein the step of removing excess microlens material includes the steps of:

applying a second mask on the microlens material defining the microlens;

exposing uncovered areas of the microlens material with the second mask; and

developing the microlens material to remove the microlens material not defined as the microlens.

27. The method of claim 19, wherein the mask is formed from a photoresist.

28. The method of claim 19, wherein the step of etching includes the step of removing the mask.